Migratory Fish
• Passage Assessment

Location: **Main stem and tributaries of Patapsco River below Bloede Dam.** Sawmill Creek, Stoney Run, Deep Run, and Herbert Run.

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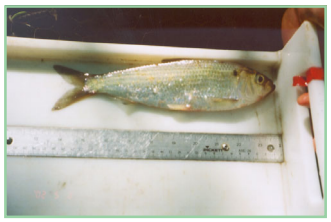
Restoration at the Stream Level



In conjunction with the Maryland Aviation Authority (MAA), and an enforcement action by the United States EPA for alleged violations of the Clean Water Act, a three year study has been commissioned to characterize the spawning and nursery potential for anadromous fish in the lower main stem of the Patapsco River and its adjacent tributaries.

The goals of this study are to:

(1) Assess fish movements and spawning activity within the lower Patapsco.

(2) Define and catalog fish blockages and assess habitat diversity above these blockages.

(3) Prioritize and direct future restoration efforts to the highest potential spawning and nursery habitats for anadromous fish.

(4) Standardize sampling and assessment methods for future fish passage assessment projects prior to restoration activities.

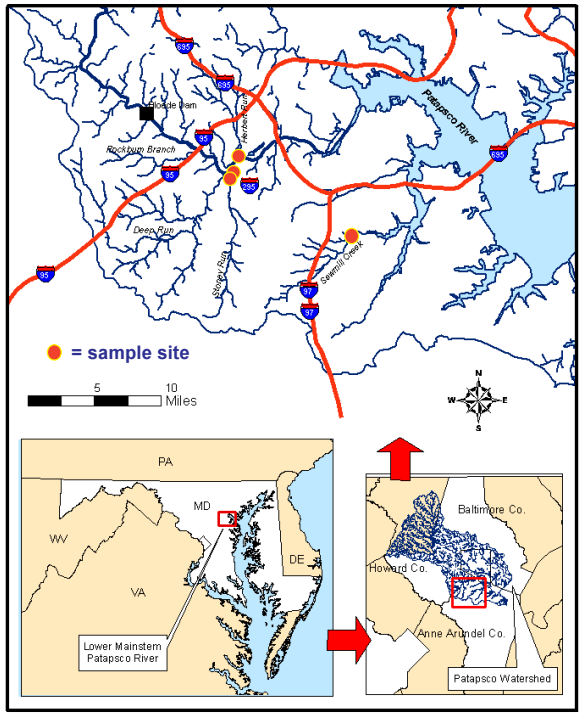
FISH SAMPLING

Modified D frame funnel traps were installed in four major tributaries of the Patapsco River below Bloede dam. Traps were monitored twice daily and Catch Per Unit Effort calculated on number of fish captured (by species) per day. Ichthyoplankton samples are collected at every fish site along with continuous monitoring of in-stream temperature.

FISH BLOCKAGE/HABITAT ASSESSMENT

Blockage assessment was completed via physical stream walks following standard procedures set by the Stream Corridor Assessment Survey (SCA) and entered into a GIS database. Spawning habitat will be assessed in the winter of 2002/2003 and entered into a GIS database.

Study Area and 2002 Sites



Results & Milestones

- Anadromous fish, including American eel, sea lamprey, alewife, blueback herring, gizzard shad, and white perch were present in the system. Overall, twenty-four fish species have been captured in the first two years.
- Ninety-four fish blockages were identified and assessed for severity and correctability along with other habitat problems.
- Currently, Deep Run has the strongest fish runs and highest diversity of anadromous fish .
- Current efforts are under way to establish a system to assess and quantify potential spawning habitat (to be carried out in the winter of 2002/2003).